

B2

ABSTRACT OF THE DISCLOSURE

1 A joining pin (3.2) with which two parts (1 and 2) made from  
2 a porous material, particularly wood or a wood-like material, are  
3 to be joined together, is anchored in the porous material at  
4 predetermined anchoring points (31, 33). For this purpose, a bore  
5 (4.2) with a closed inner end (41) is made in the parts (1 and  
6 2). The shape of this bore (4.2) is so matched to the joining pin  
7 (3.2) that it can be introduced substantially without force  
8 expenditure into the bore and is positionable in a first  
9 position. At least one predetermined anchoring point (31, 33)  
10 between the joining pin (3.2) and the wall of the bore (4.2) is  
11 formed when pressure is built up by pressing the joining pin  
12 (3.2) with a pressing force (F) more deeply into the bore to a  
13 second position. Energy is supplied in a planned manner to the  
14 joining pin (3.2) so that at the predetermined anchoring points  
15 (31, 33) the thermoplastic material of the joining pin (3.2) is  
16 plasticized. The locally plasticized plastic material is pressed  
17 by the local pressure into the porous material of the parts and  
18 forms local, macroscopic anchors (10, 20). The joining pin (3.2)  
19 is, e.g., made entirely from a thermoplastic material and the  
20 energy for plasticizing is supplied thereto by ultrasonic  
21 vibration.

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A joining pin (3.2) with which e.g. are to be joined together two parts (1 and 2) made from a porous material, particularly wood or a woodlike material, is anchored in the porous material at predetermined anchoring points (31, 33). For this purpose a bore (4.2) with a closed end (41) is made in the parts (1 and 2). The shape of this bore (4.2) is so matched to the joining pin (3.2) that it can be introduced substantially without force expenditure into the bore and is positionable in a first position and that at at least one predetermined anchoring point (31, 33) between the joining pin (3.2) and the wall of the bore (4.2) pressure is built up if the joining pin (3.2) is pressed with a pressing force (F) more deeply into the bore in a second position. Energy is supplied in planned manner to the joining pin (3.2), so that at the predetermined anchoring points (31, 33) the thermoplastic material of the joining pin (3.2) is plasticized. The locally plasticized plastic material is pressed by the local pressure into the porous material of the parts and forms local, macroscopic anchorings (10, 20). The joining pin (3.2) is e.g. made entirely from a thermoplastic material and the energy for plasticizing is supplied thereto by ultrasonic vibration.

(Fig. 2)

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